IMPLEMENTATION TEAM MEETING NOTES

February 6, 2003, 9:00 a.m.-1:30 p.m.

NOAA FISHERIES OFFICE
Portland, Oregon

I. Greetings, Introductions and Review of the Agenda.

The February 6, 2003 meeting of the Implementation Team, held at the NOAA Fisheries office in Portland, Oregon, was chaired by Jim Ruff of NOAA Fisheries and facilitated by Donna Silverberg. The meeting agenda and a list of attendees are attached as Enclosures A and B.

The following is a distillation (not a verbatim transcript) of items discussed at the meeting, together with actions taken on those items. Please note that some enclosures referenced in the body of the text may be too lengthy to attach; all enclosures referenced are available upon request from NOAA's Kathy Ceballos at 503/230-5420 or via email at kathy.ceballos@noaa.gov.

Silverberg welcomed everyone to the meeting, led a round of introductions and a review of the agenda.

2. Updates.

A. In-Season Management (TMT). Rudd Turner said the TMT had four meetings in January; there was also a process meeting on January 15. Chum protection and the low water supply forecast have been the main topics of TMT conversation during January, he said. The TMT recommended a drop to an 11.0-foot tailwater elevation at Bonneville as a hard constraint on January 24; only Oregon did not support that change, and high rainfall kept the actual elevation higher since then. Also in January, we received SOR 2003-1, and agreed to implement it, Turner said. On January 31, we agreed to return to an 11.3-foot minimum tailwater elevation as long as it did not require drafting any of the storage projects, Turner added.

At yesterday's meeting, Oregon distributed a letter outlining their position on the chum operation, Turner continued; essentially, they would like further discussion among the salmon

managers before the change is made to an 11.0-foot tailwater elevation at Bonneville during the incubation phase.

Flows peaked at 234 Kcfs at Bonneville over the weekend, he said; yesterday, average flow at the project was 147 Kcfs, so flows are starting to recede. Dworshak is now at elevation 1535 feet, and has filled significantly over the past two weeks. We have also received a series of technical presentations at recent TMT meetings, including one on the NOAA - River Forecast Center's new single-trace procedure (STP) for forecasting water supply, Turner said.

The February early-bird water supply forecast showed a continued decline across the basin, Turner continued; the new forecast is 74.8 MAF at The Dalles, 70% of normal, down from 75% of normal in the last forecast. The new forecast at Lower Granite is 15.2 MAF, 71% of normal. At Dworshak, the forecast is now 1.71 MAF, 65% of normal. The next TMT meeting is scheduled for February 19, Turner said.

How does this compare to 2001? John Palensky asked. In 2001, runoff at The Dalles was only 58.4 MAF, so it's probably getting closer to the 2001 numbers than it is to last year's numbers, when runoff was near-normal at The Dalles, Turner replied; however, it is very early yet, and it's hard to say how the water supply trend will go later, as we head into spring. Turner added that the RCC is working on the spring/summer update to the 2003 Water Management Plan; that document will be discussed at the February 19 TMT meeting.

Lori Postlethwait reported that Grand Coulee is now nearly full, at elevation 1289+ ft; Hungry Horse is at elevation 3512 ft. and meeting the minimum flow at Columbia Falls. Snake River flows are very low at the moment; some Idaho ski areas are cutting back on days and hours of operations due to lack of snow.

In response to a question from Ruff, Turner said the Bonneville tailwater elevation will stay as high as possible as long as natural flows remain high, probably for at least a few more days. After they recede, he said, we will return to the 11.0-foot minimum tailwater elevation at Bonneville, and hold that through emergence.

Howard Schaller noted that the recent high-flow events scoured out many of the redds in Hardy Creek; field personnel also lost quite a bit of equipment, including PIT-tag detectors anchored to metal bars. You can imagine what those flows did to redds, he said. Turner noted that the April 10 refill probability at Grand Coulee is currently only about 50%; if things don't get any better, he said, we may need to consider dropping the Bonneville tailwater below 11 feet. He added that the Vernita Bar minimum flow is 70 Kcfs this year. Any discussion of the need to drop the Bonneville tailwater elevation below 11 feet will occur at TMT first, Turner added. One participant noted that the most recent STP run shows Bonneville releasing 125 Kcfs at the end of February.

In response to a question from Schaller, Ruff said that if the decision is made to reduce or eliminate chum protection flows, it would be in favor of the listed stocks in most trouble. One thing we don't want to see is a repeat of the 2001 operation for Upper Columbia stocks, in which

survival through the system was in the low single digits, he said – for that reason, we're placing a high priority on meeting upper rule curve at Grand Coulee this year, and if we start having to draft Grand Coulee to meet the 11-foot tailwater requirement at Bonneville, that's when we'll have a difficult decision to make, said Ruff.

Mary Lou Soscia noted that one of the most controversial parts of the mainstem temperature TMDL is Oregon's 12.8-degree C chum spawning temperature standard at the I-205 bridge; we're already seeing exceedences of that standard, she said. In response to a question from Ruff, Paul Wagner said water temperatures in the Hanford Reach are among the warmest on record, currently, due to low flows and warmer-than-usual weather; fall chinook emergence in that reach is now projected to begin in late February, two to three weeks earlier than normal.

B. Independent Scientific Advisory Board (ISAB). No ISAB report was presented at today's meeting.

C. Water Quality Team (WQT). Ruff said WQT Chair Mark Schneider and Robin Harkless have begun evaluating the purpose and 2003 work agenda for the WQT in an effort to revitalize that group. They have done some outreach to state and tribal agencies to talk about what the WQT needs to be doing, he said, and that topic was discussed at a very productive meeting on January 21. We'll hear more as that process progresses, Ruff said. The WQT will be dealing with technical water quality issues such as the Snake River water temperature monitoring and modeling effort under RPA #143, whereas the Water Quality Plan Work Group os working on a plan that looks more broadly at what needs to be done to improve water temperatures and total dissolved gas levels in the Snake and Columbia Rivers, Ruff explained.

D. System Configuration Team (SCT). Bill Hevlin distributed a memo titled "SCT Update" (Enc. C); he spent a few minutes going through its contents. Hevlin noted that the major CRFM expense is the B2 corner collector – about $32 million in FY'03, plus some additional funds in FY'04. That project will be finished by the spring of 2004. Hevlin briefly described what the corner collector is designed to do.

Hevlin also touched on the FY'03 CRFM program budget (likely $85 million, but the Corps is still operating under continuing resolution), the FY'04 CRFM program budget (President's request: $95 million, including the new start on Chief Joseph flow deflectors), some of the major construction items currently underway (the B2 corner collector, The Dalles adult channel dewatering, Lower Monumental spillway erosion repairs and end-bay deflectors, SBC removal at Lower Granite and the installation of adult PIT detection at Ice Harbor and Lower Granite). Hevlin also provided a brief overview of the studies planned for the spring of 2003 (juvenile fish passage studies, estuary studies and system adult passage studies).

Soscia noted that the Chief Joseph flow deflector project is the only new start for the Corps nationwide in FY'04; she thanked everyone in the region who advocated for that project and the Northwest Congressional delegation for all of their hard work. With respect to the Lower Monumental spillway erosion repair work and end-bay flow deflector installation, Hevlin noted that, this spring, it will finally be possible to go to 24-hour spill at that project (that is, if

the 2003 water supply situation improves). An aggressive study program will take place at Lower Monumental this spring.

Hevlin added that he will ask the appropriate researchers to provide a presentation on the very promising results from the 2002 removable spillway weir (RSW) evaluation at Lower Granite at the March IT meeting. In general, said Hevlin, the RSW concept appears to offer a much better way to pass fish through spill at Lower Granite than traditional spill passage; it is very important that we develop a study plan that will provide an uninterrupted stream of performance and survival data in 2003. To that end, said Hevlin, NOAA Fisheries has been meeting with ODFW, WDFW, the USGS and others to discuss what we'll do this spring if we get a reduced spill volume due to low runoff conditions, and have developed a preliminary study design for a reduced-scope test. All of the study designs will be discussed further at SRWG, Hevlin added. In response to a question from Litchfield, Hevlin said that, if the Snake River runoff volume falls below 13 MAF, there will be no RSW test in 2003. As was stated previously, the most recent Snake River forecast is 15.2 MAF.

E. TMDL Update. Soscia reported that EPA, Oregon, Washington, Idaho and 14 tribes are working on a series of major TMDL efforts. Oregon and Washington have issued their gas TMDL for the Lower Columbia, which was approved by EPA in November 2002. Washington is in the process of developing a gas TMDL for the Lower Snake; the preliminary draft's public comment period ended on January 31, and it is expected to be finalized some time in March. Washington, EPA and the Spokane and Colville tribes are working on a Lake Roosevelt gas TMDL, which should be finalized some time this summer, Soscia said.

We're also working on a mainstem Snake and Columbia River water temperature TMDL, Soscia continued; the states of Oregon, Washington and Idaho are developing implementation plans for the temperature TMDL. We issued a preliminary draft mainstem temperature TMDL this fall, she said; at a series of public workshops, we heard a lot of concerns from the action agencies about that draft. A revised draft temperature TMDL has been circulated among the agencies and tribes that are developing it.

On January 14, all of the water quality managers from the state and federal agencies met and reached agreement about how the temperature TMDL will move forward, Soscia said. We are working to get the mainstem Water Quality Plan developed, which will provide a solid framework for the possibilities for improving water temperatures in the Lower Columbia. Another meeting of the Water Quality Plan Group will take place on February 13.

Again, the states are working on the TMDL implementation plans, including the development of use attainability analyses, Soscia continued. Those use attainability analyses could conclude that the existing hydrologic modifications to the system are existing uses that preclude us from achieving the water quality standards in the TMDL, such as the 12.8-degree standard for chum spawning in the Lower Columbia, Soscia said. Those standards are state law, so if that is the conclusion of the use attainability analysis, we will need to redefine our uses as limited. Essentially, the water quality planning and implementation planning processes are the processes under which this determination will be made, said Soscia; we're just not there yet, in

terms of how this may ultimately play out. So where would be the place to learn more about this feasibility issue? asked Michele DeHart. At the TMDL implementation planning process, Soscia replied.

Moving on, Soscia said EPA is continuing to work through the technical issues associated with TMDL development. There are a lot of meetings ahead to talk about these and other issues, she said. There is a lot of interest in the process at the Washington, D.C. level, she said, so we'll see what happens there. In response to a question from Suzanne Cooper, Soscia said there is currently no timeline for the completion of the mainstem water temperature TMDL or its implementation plan.

Postlethwait reminded the group that the Banks Lake draft EIS is now available; comments are due by March 10.

F. Water Quality Plan Work Group. We are working with the states, tribes and federal agencies to develop a systemwide water quality plan, said Ruff; the next meeting of this group will take place on February 13. We have developed a list of potential activities to bring that about, he said; the next step is to develop a plan that prioritizes those activities and moves us toward implementation. We're hoping this plan is going to be a very important mechanism for achieving the standards laid out in the mainstem TMDL, Soscia added.

We're trying to sort through that link to the TMDL process, in an effort to integrate the implementation part of the TMDLs into the mainstem water quality plan, Ruff said. He noted that the Corps has taken the lead in preparing the Water Quality Plan sections for gas and temperature, and has done excellent work in getting various work products completed on time – major kudos to the Corps for that effort, he said. The water quality plan work group is also continuing to discuss the geographic scope of the mainstem water quality plan; Idaho Power has become very interested in that process.

If there is sufficient interest, once the Water Quality Plan is completed, we can present it to the IT, Ruff said. There was general agreement that this would be useful; Ruff said he will schedule such a presentation at an upcoming IT meeting when the plan is presentable.

3. Fish and Wildlife Program Reprioritization Process to Meet BPA's Funding Cap.

CBFWA's Tom Iverson led this presentation; he noted that this topic has to do with the Council's rolling provincial review project selection process. During that process, he said, we had planned to spend $186 million; that is the amount adopted by the Council and Bonneville for the Fish and Wildlife program. However, what we now have to work with is about $139 million, Iverson said, which is a lot less than we had planned on, and had approved projects for. In addition, BPA has eliminated the carryover provision that allowed us to roll unspent funds over into the following fiscal year to allow projects to be completed; that vaporized about $45 million, Iverson said. We have also gone to an accrual billing system, he said, with $139 million as a cap for FY'03.

In other words, Iverson said, we have a funding problem. BPA has told the Council that they cannot spend more than $139 million this year, and asked the Council to help them out. The Council agreed to do so; this is now being characterized as a "reprioritization" of these provincial fish and wildlife projects, Iverson said. We've started to talk about which projects are on the block, and have gotten down to about $168 million in total project cost, Iverson said.

We've been talking to Bonneville about why this happened, he said; that topic is still under discussion between BPA, the Council and CBFWA. After last week's meeting, Council staff decided that the problem may not be as large as was previously thought; rather than essentially dismantling the rolling provincial review project selection process, perhaps we can manage it as a cash-flow management exercise. We've never had to manage to an accrual budgeting process, he said; while there is general agreement that this is a businesslike way to manage these projects, there is some doubt about whether we have the information management tools we need to do this. Bonneville is building a database to monitor implementation and spending as it happens.

In response to a question from Jim Litchfield, Iverson said Bonneville is looking to spend $139 million or less on the fish and wildlife program in FY'03, and less in the out-years.

The bottom line is that the Council now feels that we can manage this situation through better cash-flow management, Iverson said. Council staff has been going through the provinces project by project, to get down to the brass tacks of the situation and gain as much confidence as possible about the accrual estimates. They have identified a few problems, including the fact that we are having to pay for some projects approved last year but implemented this year. Because there is no longer carryover, he said, we have to pay for the completion of those projects out of the $139 million for FY'03. Also, he said, as we went project by project, it became clear that some projects were getting carryover, and others were not – Bonneville's accrual estimates for some projects were significantly higher than the Council-approved budgets for those projects, Iverson said, and we need a better understanding of what is happening with those projects.

At the end of the day, we found that our accrual estimate dropped below $139 million, said Iverson. There is a group of land acquisition projects that, so far, are not being capitalized, he said; a few of those have anadromous fish benefits, but most of those land acquisitions are for wildlife. What we're now hoping to do is set up a monthly accruals monitoring process, he said. There will be an emergency Council meeting next week to fine-tune the Council's response to Bonneville's fish and wildlife budget position, Iverson said; at this point, we don't know what that response will be. The bottom line, however, is that, according to our best current information, we should be able to keep the accruals below $139 million in FY'03 – the opportunities are there to control spending, but one difficulty is the amount of trust that will require. The Council will provide its response to Bonneville by February 21, Iverson said.

So the bottom line is that you think you can manage to a $139 million accrual this year, said Litchfield, but the capital land acquisitions might be a problem? Essentially, that's correct, Iverson replied. Traditionally Bonneville capitalizes facilities, but not land acquisitions,

Suzanne Cooper observed – Bonneville policy would need to be changed to allow that to occur. If we could receive wildlife credits for those acquisitions, she said, that would probably help. Good clarification, said Silverberg.

Palensky noted that BPA has provided the Council with a list of critical BiOp projects totaling about $120 million of the $139 million available; as you can imagine, he said, that caused some consternation among the Council. By next week, NOAA Fisheries hopes to identify three levels of projects – first, those projects absolutely critical to meeting the 2003 BiOp check-in, second, groups of projects we strongly advise be done, and third, the largest group, projects on which we believe Bonneville and the Council have a fair amount of funding discretion. Do you know the dollar amounts for each category? Litchfield asked. Not yet – we hope to have that next week, Palensky replied. Another participant noted that the original $120 million list is now down to about $108 million, which still leaves only about $30 million for resident fish and wildlife projects.

The basic issue is that the Power Act was here before ESA, said Iverson; when the ESA BiOps were put in place, there wasn't a lot of additional funding added to allow for their implementation. The result, now that we are implementing the BiOps, is an erosion of the funding for the base Fish and Wildlife program, Iverson said.

4. BPA's Solicitation for Projects to Meet RM&E Caps.

Kim Fodrea distributed a handout titled "Brief Description of RM&E Gaps" dated February 5 (Enclosure E). What we're looking for is additional proposals to cover some of the RM&E gaps we see, based on the applicable BiOp RPAs, she said. This document lists the five RPAs Bonneville is concerned about. One thing that is causing some confusion is that proposals have been received on some of these RPAs, she said, but our concern is that those proposals exclude some of the listed species, or may not be truly responsive to the needs laid out in the RPA. We're still discussing this issue with the Council, Fodrea added; we do not yet have agreement on how to move forward with this issue.

Palensky noted that Council staff have some conceptual issues with BPA's list; in addition, he said, the Council wants to make sure we aren't already addressing these RPAs, and that there may be opportunities to minimize the capital cost of some of these projects. Obviously, said Palensky, this needs to be resolved quickly if some of these studies are going to move forward in 2003. There is also the question of the accrual cost of these additional studies, he said; the most recent estimate I've heard was about $4 million, although I understand that estimate has since been scrubbed downward.

Fodrea asked that anyone interested in commenting on the BPA list, or this issue, contact her as soon as possible. In response to a question from Schaller, Fodrea said BPA hopes to receive these proposals as soon as possible, with the goal of having researchers on the ground in May. And are you waiting for a response from the Council, or will you implement this list no matter what the Council recommends? Schaller asked. I don't think anyone would argue that the RM&E gaps on this list need to be addressed, Palensky replied; however, the Council has a

number of concerns, including the financial impacts of this list on the existing list of project priorities. We'll continue to work with the Council to try to resolve those concerns, he said.

5. Mainstem Amendment Process.

CBFWA's Neil Ward said the current amendment process is now nearing its end. The Council has received 65 recommendations since it released its draft mainstem amendment document in October; the deadline for those comments is this Friday. There may be an opportunity to provide additional comments at the upcoming Council meeting in Portland later this month, Ward said. The decision could possibly be made at the Council's March meeting in Whitefish, although currently, there is a two state-two state split on the proposed amendment, and a super-majority is required for Council approval.

Ward said CBFWA will be submitting comments on the draft mainstem amendment; most of those comments will focus on general principals. So that will be a unified set of CBFWA comments? Cooper asked. It will be a consensus document, Ward replied.

Bruce Suzumoto noted that the Council has asked the ISAB to develop a flow augmentation report; that report will be released on February 10. Because that will be after the comment period closes on the mainstem amendment, we will probably have a public comment period on that report, ending February 25 so that those comments will be available to the Council at their March meeting, said Suzumoto. We will then enter the so-called ex-parte period, in which all public comment will be cut off to allow the Council to deliberate, at the end of February, Suzumoto said.

6. Burbot Life History.

IDFG's Vaughn Paragamian led this presentation, titled "Recommended Flows For Burbot Spawning Migrations in the Kootenai River." He touched on the following major topic areas:

- The fact that Kootenai River burbot may be near demographic extinction. The long-range goal of IDFG's program is to restore burbot to a fishable level.
- The burbot's geographic distribution – it is the only species of freshwater cod, and is of marine origin
- The burbot once provided an important winter commercial and sport fishery
- Burbot life stages and food
- Spawning synchrony – burbot are highly synchronized in the timing of maturity and arrival on the spawning habitat
- Burbot swimming endurance – burbot are notoriously deficient in swimming endurance; even the largest burbot cannot sustain their swimming for 10 minutes after water velocity reaches 24 cm/second
- Burbot activity levels across the year
- Burbot are capable of moving long distances (up to 120 km in the Kootenai system), but they are slow
- Sensitive burbot life-history factors (low swimming endurance, highly-synchronized

winter spawning, long distances to travel in the Kootenai system, larvae need an immediate source of food during the winter months)

- Winter flows in the Kootenai, pre- and post-Libby Dam (completed 1972) – flows were much lower during the winter months before Libby Dam was completed
- The geographic scope of the burbot study area
- The original burbot study objectives (1993-'94)
- Results from this study (burbot movement)
- Burbot study objectives – 1995-present
- The impacts of Libby Dam outflow on burbot movement – results from three low flow tests during the winter on 1997-'98 – burbot movement increased during periods of low Libby Dam outflow
- The burbot conservation strategy
- Results from the various hypothesis tests conducted by IDFG, 1995-present (results varied, with no or incomplete tests in many years. In 2002-'03, the tests were run, but no fish were caught and radio-tagged).
- The search for an alternative method to determine suitable flows for burbot spawning
- Conclusion: burbot need 90 days of low Libby Dam outflow (120 days would be better) to move 45 km.
- Limiting factors – high water velocities, warmer waters, reduced productivity
- The proposed flow -- 200 cms outflow from Libby for a bare-bones minimum of 45 days to encourage burbot spawning
- An international conservation strategy has been prepared, but was recently rejected by BPA.

Cooper clarified that BPA was unable to support the strategy in 2003, but is willing to continue to seek a conservation strategy for this species. In response to a question from Ruff, Paragamian said that, in IDFG's view, it is not too late to implement a conservation strategy for burbot. Cooper reiterated that BPA is still willing to participate in that process. Howard Schaller noted that the low-flow operation from Libby cannot be implemented in all water years; this would have been a good year, he said, because flows in the system have been so low.

In the long term, said Ruff, we may be headed in the direction you request with some of the measures laid out in the BiOp, which ask the Corps to revisit its fixed end-of-December flood control draft point at Libby. If they eliminate that fixed draft requirement, and go to a variable December 31 draft point at Libby, it will be much easier to provide the requested low flows from Libby. Chris Ross added that the Corps' study of Libby flood control operations is scheduled for completion in October 2003. Libby VARQ flood control operations during the winter months could also help with reduced flows.

It sounds, then, as though IDFG is going to keep working on the burbot issue, and that various management agencies are willing to continue to work with you to develop a conservation strategy for burbot, Silverberg said. True, Paragamian replied, but I would point out that time is running out for this species -- it is facing demographic extinction. Schaller added that one of the reasons for developing such a conservation strategy is to avoid the heavy hand of an Endangered Species Act listing for this species.

7. 2002 Salmon and Steelhead Migration Survival.

Bill Muir of NMFS' Northwest Fisheries Science Center led this presentation, titled "NMFS Survival Studies, 1993-2002." He went through a series of slides, touching on the following major topic areas:

- Results for PIT-tagged yearling chinook salmon survival from Snake River Basin hatcheries to Lower Granite tailrace, by hatchery (there is a significant inverse relationship between travel distance and survival); survival averages 67% for all hatcheries combined
- Yearling chinook salmon and steelhead survival through individual reaches – in 2001, yearling chinook survival was 90% in the Lower Granite-Little Goose reach, 97% from Little Goose to Lower Monumental, 81.6% for the Lower Monumental-McNary reach, 91% for the McNary-John Day reach and 84% for the John Day-Bonneville reach
- The effects of avian (Caspian tern) predation – 12,000 PIT tags were found on the islands colonized by avian predators in 2002, most on Crescent Island – that's about 10% of the PIT-tagged steelhead and 1.5% of the PIT-tagged yearling chinook leaving Lower Monumental
- Average yearling chinook and steelhead survival, by reach, over all study years (table)
- The locations of the PIT-tag detection array
- Estimated steelhead and yearling chinook survival from the Snake River trap to Bonneville Dam, hatchery and wild fish
- Per-project extrapolation of hydrosystem steelhead and yearling chinook survival, by outmigration year, 1965-2002
- The estimated survival of PIT-tagged fall chinook salmon for the McNary-John Day reach, 1999-2002 (58% in 2001, up to 76% in 2002)
- Survival from McNary to John Day correlated with temperature, flow and turbidity conditions (graphs).

Please note that Muir's presentation is available as Enclosure D. So there is no fall chinook survival data available below Lower Granite? Ruff asked. Correct, Muir replied.

So what lessons do you take away from this information? Silverberg asked with respect to the last graph. That as flows increase, fish migrate faster, once they're ready to migrate; that as temperatures increase, survival goes down; and that as turbidity goes down, survival decreases probably because as the water clears, it becomes more difficult for juvenile fish to avoid predators, Muir replied.

8. Next IT Meeting Date.

The next meeting of the Implementation Team was set for Thursday, March 6. Meeting summary prepared by Jeff Kuechle, BPA contractor.